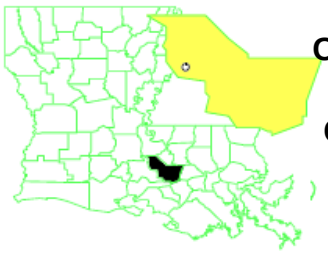
BAYOU BONFOUCA
SLIDELL, LOUISIANA
ST. TAMMANY PARISH



EPA REGION 6
CONGRESSIONAL DISTRICT 01

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EPA ID# LAD980745632
State Site ID: 4716

Background

The Bayou Bonfouca Superfund Site Status Summary will be updated annually. The next update will occur in February 2013.

The Bayou Bonfouca Superfund Site is in Slidell, St. Tammany Parish, Louisiana. The site occupies 54 acres and is located south of West Hall Avenue and north of and adjacent to Bayou Bonfouca. The site is bordered on the west by a creek and wooded land, on the east by a drainage ditch and commercial property, and wooded land/residential areas to the north (across West Hall Avenue) and south (across the bayou).

In 1882, a creosote plant began operating at the Bayou Bonfouca site. Over the years, the plant operated under several owners including the New Orleans and North Eastern Railroad, Southern Creosoting Company, Gulf States Creosoting, American Creosote Company, and American Creosote Works, with final ownership residing with the Braselman Corporation. During the plant's operation, numerous releases of creosote occurred through spills, runoff, and possibly discharges. In the early 1970s, a fire occurred at the plant; during the fire, several large storage tanks were ruptured, causing creosote to flow onto the site and into the bayou. Between 1970 and 1972, the plant was disassembled, leaving behind a few building shells and foundation slabs. Wood-treating operations at the site ceased at this time. Approximately 1.5 miles of scenic Bayou Bonfouca were biologically sterile due to severe creosote contamination in bayou sediments and in the water column. Creosote contamination was so concentrated that it injured or killed aquatic animals and waterfowl, and posed a significant hazard to recreational users.

The principal pollutants found at the site were PAH compounds associated with creosote. The contaminants of concern were: benzo(a)pyrene, benzo(a)anthracene, benzo(b)flouranthene, benzo(k)flouranthene, indeno(1,2,3-cd)pyrene and chrysene. These constituents were identified in surface soils, onsite ground water, offsite ground water, and in bayou sediments. Dense Non-Aqueous Phase Liquids (DNAPLs) were also identified in the ground water beneath the southern portion of the site, beneath the east drainage ditch, and on the south side of the bayou under portions of the residential subdivision

Approximately 750 residents live within one mile of the site. The nearest residence to the site is about 400 feet across the bayou to the southwest. The nearest drinking water well is approximately 1/4 mile northeast of the site.

Two RODs (August 15, 1985 and March 13, 1987), one ROD Amendment (July 20, 1995), and one Explanation of Significant Differences (February 5, 1990) have been issued for the Bayou Bonfouca site. The remedy included the dredging of Bayou Bonfouca contaminated sediments, onsite incineration of contaminated soils and sediments, and extraction and treatment of contaminated ground water. An Explanation of Significant Difference was released to reflect significantly greater waste volumes than previous estimates resulting in remedy selection of onsite incineration of wastes after careful examination of biotreatment, underwater capping, and other alternatives. The cleanup detoxified over 170,000 cubic yards of contaminated sediment, treated approximately 17,600,000 gallons of contaminated ground water, and recovered about 44,500 gallons of creosote oil. A mile and a half of the Bayou was restored for aquatic life, as well as human recreational and residential use. A public boat launch was installed by the City to allow public access to this beautifully restored area.

Current Status

EPA and LDEQ continue to review the operation and maintenance of the groundwater pump and treatment of creosote oil. Monthly operational reports are submitted to the EPA for review and comment.

The Louisiana Department of Environmental Quality maintains the site and performs routine monitoring of the ground water. Incineration of contaminated soils and sediments were completed on July 28, 1995. Ground water treatment began in June 1991 and continues to reduce the volume of contaminated ground water and prevent migration. Damage to some of the operating equipment resulted from hurricane Katrina in late August 2005. LDEQ and FEMA have assessed the extent of the damage and repairs are being made now. Sampling on and around the site took place in December 2005 to assess if any contaminants in the bayou were spread into neighboring areas. This sampling did not show any contamination problems on or around the site.
A third five year review was completed in July 2011 which determined that the overall remedy for the site is protective in the short term.

Benefits

The cleanup detoxified over 170,000 cubic yards of contaminated sediment, treated approximately 17,600,000 gallons of contaminated ground water, and recovered about 44,500 gallons of creosote oil. A mile and a half of the Bayou was restored for aquatic life, as well as human recreational and residential use. A public boat launch was installed by the City to allow public access to this beautifully restored area.

Brasselman Corporation and EPA donated the Site property and buildings to the City of Slidell in January 1997 for future use as a city maintenance yard, sewage control facility during flood events, and possible park.

EPA contractors for subcontracting services within St. Tammany Parish spent approximately $12 Million dollars during the cleanup. Between 80 and 90% of field and office staff were locally hired, trained, and employed by EPA Contractors or sub-contractors.

National Priorities Listing (NPL) History

Site Hazard Ranking System Score: 29.78
Proposed Date: 12/30/82
Final Date: 9/08/83

Location: The site includes about 54 acres and associated Bayou sediments. It is located in Slidell, Louisiana on the north shore of Lake Ponchartrain and includes the former American Creosote Works Plant and a portion of scenic Bayou Bonfouca. The site is south of West Hall Avenue in Slidell and north of and adjacent to Bayou Bonfouca (See Site Map).

Population: Approximately 26,000 residents live in the surrounding community.

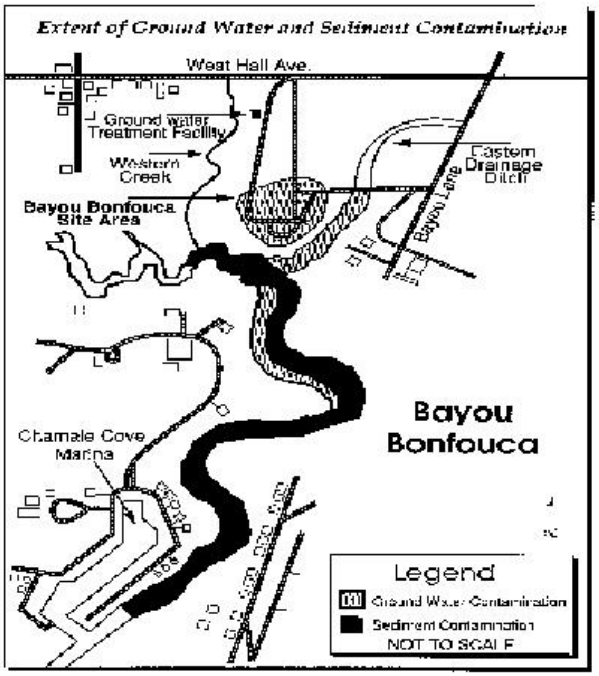
Setting: Commercial operations involving the treatment of wood products with creosote began about 1892. Numerous releases of creosote occurred during the years of operation. There were eight highly contaminated creosote areas at the site. The northern half of the site is heavily wooded. The site is bordered on the east by a drainage ditch, on the west by a creek, and on the south by Bayou Bonfouca. Site-related contaminants were found in the bayou. The nearest residence to the site is approximately 400 feet across the bayou to the southwest. The nearest drinking water well is approximately 1/4 mile northeast of the site.

Hydrology: Seven stratigraphic layers were encountered in the first 60 feet to include interbedded sands, clays, and silts. Three ground water systems were encountered including a surficial aquifer, a shallow artisan aquifer at 30 feet, and a deep artisan aquifer at 60 ft. The elevation of the 100-year floodplain is 9 feet mean sea level (MSL) that would inundate the site.

Principal Pollutants

The principal pollutants at the Bayou Bonfouca Superfund site are creosote compounds and Polynuclear Aromatic Hydrocarbons (PAHs).

Site Map and Photographs



Site photographs can be viewed on the Internet at: http://www.epa.gov/earth1r6/6sf/pdffiles/bbfphoto.pdf

Health Considerations

Approximately 1.5 miles of scenic Bayou Bonfouca were biologically sterile due to severe creosote contamination in bayou sediments and in the water column. Creosote contamination was so concentrated that it caused second-degree chemical burns to divers, injured or killed aquatic animals and waterfowl, and posed a significant hazard to recreational users.

Record of Decision (ROD)

Groundwater/Surface Water, Operable Unit 1: ROD signed March 13, 1987,
which incorporated the Source Control ROD of August 15, 1985

The remedy included:

Dredging of Bayou Bonfouca contaminated sediments;
Onsite incineration of contaminated soils and sediments; and
Extraction and treatment of contaminated ground water

An **Explanation of Significant Difference** was released February 5, 1990**,** to reflect significantly greater waste volumes than previous estimates resulting in remedy selection of onsite incineration of wastes after careful examination of biotreatment, underwater capping, and other alternatives.

Additional groundwater recovery wells were installed along Bayou Bonfouca starting in January 2000 and began pumping in May 2000.

Total cleanup costs were estimated at $140 million dollars.

Site Contacts

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